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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,122	12/12/2003	Grant Kloster	42P16019	1922
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EXAMINER LIGHTFOOT, ELENA TSOY				
ART UNIT 1792		PAPER NUMBER		
MAIL DATE 02/09/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/735,122

Applicant(s)

KLOSTER ET AL.

Examiner

Elena Tsou Lightfoot

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 12-17, 25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-17, 25 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

Amendment filed on December 23, 2008 has been entered. Claims 1, 12-17, 25, 27-31 are pending in the application.

Phosgene Coupling Agent of Original Claim 9 Had Been Withdrawn

Note that in response to Election/Restriction requirement mailed on 3/15/2007, Applicants elected species of **silane** coupling agent of claims 12-17 and 25-31, and **phosgene** coupling agent of original claim 9 had been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species. Claim 1 now recites **non-elected phosgene** coupling agent. Since applicant has received an action on the merits for the originally presented invention, amended claim 1 drawn to phosgene coupling agent has been withdrawn from consideration as being directed to a non-elected species.

Status Identifier

Status identifier in claim 1 should be changed to “(Withdrawn)”.

Claim Objections

1. Objection to claim 12 because of the informalities has been withdrawn due to amendment.
2. Objection to claim 13 under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim has been withdrawn due to amendment.

Art Unit: 1792

3. Objection to claim 14 under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim has been withdrawn due to amendment.
4. Objection to claim 15 because of the informalities has been withdrawn due to amendment.
5. Objection to claim 16 because of the informalities has been withdrawn due to amendment.
6. Objection to claim 30 because of the informalities has been withdrawn due to amendment.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25, 27-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 25 recites “exposing the exposed pore to at least one coupling agent; forming links coupling the at least one coupling agent to a surface of the pore; exposing the exposed pore and the at least one coupling agent linked to the surface of the pore to an oxidizing agent; and forming disulfide bonds between adjacent ones of the at least one coupling agent that are linked to the surface of the pore to form a bridge structure that is disposed across the opening of the exposed pore” which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention because the Applicants' specification discloses exposing the exposed pore to one coupling agent, and the bridge is formed between two or more molecules of the *same* coupling agent (See Fig. 3b, 3c).

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Rejection of claim 1 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to amendment.

10. Rejection of claims 12-17 under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps has been withdrawn due to amendment.

11. Rejection of claims 25, 27-31 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to amendment.

12. Rejection of claims 25, 27-31 under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 12-16, 25, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ivanov et al (US 6,881,437) in view of Ogawa et al (US 5,103,371), further in view of Ogawa et al (US 4,673,474) and Ogawa et al (US 5,466,523), further in view of Ogawa et al (US 20010031364), and further in view of Fleckenstein et al for the reasons of record set forth in paragraph 17 of the Office Action mailed on 7/23/2008.
15. Claims 17 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over cited prior art above, and further in view of Cottle et al (US 2,874,192) for the reasons of record set forth in paragraph 18 of the Office Action mailed on 7/23/2008.

Response to Arguments

Applicants' arguments filed December 23, 2008 have been fully considered but they are not persuasive.

Applicants argue that since Fleckstein discloses impregnating prostheses with biological gelatin and crosslinking the same with thiol group containing compounds with disulfide bond formation, one skilled in the art would not be motivated to combine a biological, non-silane, thiol reference of Fleckstein with the other references cited in the Office Action. There is no suggestion in the prior art references cited to suggest the desirability of utilizing a gelatinous, non silane containing material as a coupling reagent. Additionally, the Fleckstein reference teaches away from the other prior art references cited by the Office, since Ivanov, for example, discloses the use of any silane material, and Fleckenstein discloses the use of a gelatinous material. It is improper to combine references where the references teach away from their combination (MPEP 2145§ X.D(2)).

The Examiner respectfully disagrees with this argument. Fleckstein discloses that sealing pores (See column 1, lines 30) in vessel prostheses can be carried out by impregnating porous vessel prostheses with soluble gelatin and to crosslink the same with the aid of thiol group-containing compounds with subsequent oxidative crosslinking, accompanied by the formation of disulphide bridges" (See column 1, lines 42-47). In other words, the thiol group-containing compounds are attached to the gelatin in the pores and then form bridges.

The cited prior art also seals pores using thiol group-containing compounds attached to OH groups in the pores. Therefore, in contrast to Applicants argument, Fleckstein teaches the desirability of forming disulphide bridges in thiol group-containing compounds that are placed into the pores.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 1792

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.

Primary Examiner

Art Unit 1792

February 9, 2009

/Elena Tsoy Lightfoot/